

Serial No. 09/664,130

Atty Docket No. GIO-004-US
5702-00004IN THE CLAIMS

1. (currently amended) A gas generant composition comprising consisting essentially of:

silicone as a fuel at about 10-25% by weight;

an oxidizer selected from the group consisting of metal and nonmetal perchlorates
at about 30-85% by weight; and

a coolant selected from the group consisting of alkali, alkaline earth, and
transitional metal carbonates, bicarbonates, oxalates, and hydroxides at
about 1-30% by weight, said percentages stated by weight of the gas
generant composition;

~~— wherein said composition has a burn rate of at least 0.4 inches per second at ambient pressure.~~

2. (currently amended) The gas generant composition of claim 1 further comprising consisting essentially of:

a secondary oxidizer selected from the group consisting of metal and nonmetal nitrates at about 30-50% by weight.

3. (original) The gas generant composition of claim 1 wherein said oxidizer is selected from the group consisting of potassium perchlorate, ammonium perchlorate, and lithium perchlorate.

4. (currently amended) The gas generant composition of claim 1 wherein said composition comprises consists essentially of:

silicone as said fuel;

potassium perchlorate as said oxidizer; and

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strontium carbonate as said coolant.

5. (currently amended) The gas generant composition of claim 1 wherein said composition comprises consists essentially of:

silicone as said fuel;
potassium perchlorate as said oxidizer; and
strontium oxalate as said coolant.

6. (currently amended) The gas generant composition of claim 1 wherein said composition comprises consists essentially of:

silicone as said fuel;
potassium perchlorate as said oxidizer; and
calcium oxalate as said coolant.

7. (currently amended) The gas generant composition of claim 1 wherein said composition comprises consists essentially of:

silicone as said fuel;
potassium perchlorate as said oxidizer; and
calcium carbonate as said coolant.

8. (currently amended) The gas generant composition of claim 1 wherein said composition comprises consists essentially of:

silicone as said fuel;
potassium perchlorate as said oxidizer; and
magnesium hydroxide as said coolant.

9. (currently amended) The gas generant composition of claim 1 wherein said

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composition comprises consists essentially of:

silicone as said fuel;
potassium perchlorate as said oxidizer; and
magnesium carbonate as said coolant.

10. (currently amended) The gas generant composition of claim 1 wherein said composition comprises consists essentially of:

silicone as said fuel;
lithium perchlorate as said oxidizer; and
a coolant selected from the group consisting of strontium carbonate, calcium carbonate, strontium oxalate, magnesium carbonate, magnesium hydroxide, and potassium carbonate.

11. (currently amended) A gas generant composition comprising consisting essentially of:

silicone as a fuel at 10 20-25%;
a primary oxidizer selected from the group consisting of metal and nonmetal perchlorates at 30-85 60%; and
a coolant selected from the group consisting of alkali, alkaline earth, and transitional metal carbonates, oxalates, bicarbonates, and hydroxides at 4 20-30%, said percentages stated by weight of said gas generant composition,

~~wherein said composition has a burn rate of at least 0.4 inches per second at ambient pressure.~~

12. (currently amended) The gas generant composition of claim 11 further comprising consisting essentially of:

at least one secondary oxidizer selected from the group consisting of nonmetal,

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alkali metal, alkaline earth metal, and transitional metal chlorates, nitrates, nitrites, and oxides at 30-50% by weight of said gas generant composition.

13. (original) The gas generant composition of claim 12 wherein said at least one secondary oxidizer is selected from the group consisting of phase stabilized ammonium nitrate, ammonium nitrate, strontium nitrate, and potassium nitrate.

14. (withdrawn) A method of inflating an airbag comprising the step of:
combusting a gas generant composition comprising silicone, an oxidizer selected from the group consisting of metal and nonmetal perchlorates, and a coolant selected from the group consisting of metal carbonates, metal oxalates, metal bicarbonates, and metal hydroxides.

15. (withdrawn) The method of claim 14 wherein said silicone is provided at 10-25%, said oxidizer at 30-85%, and said coolant at 1-30%, said percentages stated by weight of said gas generant composition.

16. (currently amended) A gas generant composition comprising consisting essentially of:
silicone as a fuel at 10-25%;
potassium perchlorate as a primary oxidizer at 30-85%; and
a coolant selected from the group consisting of alkali metal, alkaline earth metal, and transitional metal carbonates, oxalates, and hydroxides at 1-30%, said percentages stated by weight of said gas generant composition;
~~wherein said composition has a burn rate of at least 0.4 inches per second at ambient pressure.~~

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17. (currently amended) The gas generant composition of claim 16 comprising consisting essentially of:

silicone as said fuel at 10-25%;
potassium perchlorate as said oxidizer at 30-85%; and
strontium carbonate as said coolant at 1-30%, said percentages stated by weight
of said gas generant composition.

18. (currently amended) The gas generant composition of claim 17 comprising:

silicone as said fuel at 20%;
potassium perchlorate as said oxidizer at 60%; and
strontium carbonate as said coolant at 20%, said percentages stated by weight of
said gas generant composition.